EXHIBIT 600

UNITED STATES DISTRICT COURT

FOR THE SOUTHERN DISTRICT OF WEST VIRGINIA

CHARLESTON DIVISION

IN RE: DIGITEK PRODUCT LIABILITY

LITIGATION

THIS DOCUMENT RELATES ONLY TO:

Kathy McCornack, an individual; Daniel E. McCornack, Jr., an individual; and Ralph J. McCornack, a minor by and through his guardian ad litem, Plaintiffs, v. Actavis Totowa, LLC, et al., Defendants.	MDL No. 2:09-CV-0671

DEPOSITION OF LAWRENCE VON DOLLEN, M.D.

Monday, October 5, 2009

San Luis Obispo, California

2:03 p.m. - 4:26 p.m.

REPORTED BY CINDY D. GRIFFITH
CSR #7281

THE DEPOSITION OF LAWRENCE VON DOLLEN, was taken at the offices of McDaniel Shorthand Reporters, 1302 Osos Street, San Luis Obispo, California, before Cindy D. Griffith, a Certified Shorthand Reporter in and for the State of California, on Monday, October 5, 2009, commencing at the hour of 2:03 p.m.

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I N D E X

E X H I B I T S

LAWRENCE VON DOLLEN, M.D.,
having been first duly sworn, was
examined and testified as follows:

EXAMINATION

BY MR. MORIARTY:

Q Tell us your full name, please.

A Lawrence Eugene Von Dollen.

Q Have you ever had your deposition taken before?

A Yes.

Q How many times?

A Twice.

Q At least the process is going to be the same. I'm going to ask you relatively plain English questions. I need your answers back to me. It can be scientific, but certainly plain English. Okay?

Court reporters don't understand nods of the head, shakes or hand gestures. Okay?

A Okay.

Q If you don't understand my question for whatever reason, you let me know and I'll make it clear to you. Okay?

A All right.

Q What were the circumstances under which you

have been -- had your deposition taken before?

A It's been so long ago, I'm difficult -- it's hard for me to remember.

Once as a resident when a patient had an allergic, questionable drug allergic reaction. This would probably be 30 -- 20 some years ago.

I don't remember at the moment just what the second one was about.

Q Were both of them medical negligence cases?

A I don't recall. The one with the allergy would have been a question whether the patient had two disease processes that were interrelated. And at that time it was a questioning of allergy versus drug reaction. And it's been so long ago, I can't remember the details.

Q Okay. All right. We appreciate you coming down here today to do this down in San Luis Obispo.

What -- did you look at your office chart, the computer version of your office chart for Mr. McCornack before you came to testify today?

A Yes.

Q Other than that, did you review any documents either hard paper or online?

A I received a copy of Dr. Lemm's office notes several weeks ago.

Q Okay.

A And in previous conversations with Mr. Ernst there had been the question of digoxin levels under different circumstances. And he had shown me an article, at my request, in one of our recent conversations.

Q Who sent you Dr. Lemm's notes?

A Mr. Ernst.

Q And do you remember the name of the article?

A I'm sorry, I don't.

Q Do you remember the authors?

A No.

Q Do you remember the journals?

A No.

Q Do you remember the general topic?

A Um, would be digoxin levels in patients who had died as composed with -- as compared with those that when the specimen was drawn when they were living.

Q Have you heard of postmortem redistribution?

A Yes.

Q Is that what that article was about, the postmortem redistribution of digoxin?

A That would have been -- I just glanced at a summary of the article on it. I'm sorry, I don't have all of the in-depth, but that would have been one of the dynamics involved, yes.

Q I think what I'm holding is some exhibits from Dr. Lemm's deposition. Have you spoken with Mr. Ernst since Friday about this case?

A Yes.

Q Did he tell you anything about the testimony that Dr. Lemm gave when we took his deposition in Templeton on Friday?

A He had said that, as I recall -- again, these are very short -- the drift of it was that Dr. Lemm had attributed the patient's cause of death as digitalis toxicity, if I recall correctly.

Q Is that it?

A That was the extent of the -- that topic, yes.

Q This is what we had marked as Exhibit 2 at Dr. Lemm's deposition. An article by Vorpahl and Coe, entitled, Correlation of Antemortem and Postmortem Digoxin Levels.

Is this likely the article that Mr. Ernst sent to you?

A It's possible, but it's not -- or a summary thereof. This is not the exact article. Well, the print on the page does not appear to be the same format as what I was reading before, so...

Q Okay. Anything else you reviewed before today's deposition?

A Not that I recall.
Q When was the last time you looked at a package insert for a digoxin product?
A About a month ago.
Q Which product?
A What was digoxin.
Q Was it Lanoxin or Digitek?
A Well, basically, I looked up in Goodman and Gilman, just happened to be an old copy lying around, and I looked at it basically scanning through it for that issue, as far as digoxin levels under different circumstances, and I didn't really see anything.
Q How old are you?
A Fifty-nine -- 58. Will be 59 later this month.
Q Did you grow up in Central California?
A Yes.
Q Where?
A I was born in Paso Robles and grew up in that area, rural Paso Robles.
Q And where did you go to medical school?
A University of California San Francisco.
Q Where did you do your internship and residency?
A Hennepin County Medical Center, which is University of Minnesota, and an affiliate for internship residency. Then cardiology fellowship at University of

Oregon.

Q Okay. Any other subspecialty fellowships?

A While I was at the University of Oregon, I did a year of nuclear medicine.

Q Are you board certified in internal medicine?

A Yes.

Q Are you board certified in cardiology?

A Cardiovascular diseases, yes.

Q Are you board certified in anything else?

A There is a board of nuclear cardiology that I'm -- I passed a board for that. It's not quite the board of internal medicine, but, yes.

And then also in cardiology, um, I'm certified as an -- in interventional cardiology.

Q How long have you been practicing cardiology in the Templeton, California area?

A Since 1986.

Q Do you have any teaching appointments?

A No.

Q Your C.V. is probably going to be e-mailed here to us, but have you published in the medical literature?

A May have authored one on something years ago, but I can't remember.

Q Prior to the death of Dan McCornack in the spring of 2008, had you ever met Mr. Ernst before?

A Yes.
Q Tell me how you know him.
A He attended Paso Robles High School as did I.
Q Were you in the same general class?
A He was a year ahead of me.
Q Okay. Have you known him in general since that time?
A We've touched basis sporadically. Sometimes we go 10, 20 years and not see somebody. Then sometimes several times a year we cross informally.
Q Have you ever consulted with him on any cases as an expert witness?
A No.
Q Has he written you any letters about this case?
A Um, there was one or two. Mainly just a notification of this type of event.
Q Okay. How many times have you met with him in person about this case before today?
A I'm sorry, I've been out of town for a week. I'm a little bit fuzzy.

We met on Sunday, and before that was it phone calls or did we meet in person? I think a phone call or two and then one Sunday.

Q I don't get to take his testimony. I just want to know your best memory.

A My best memory, once.

Q One time in person. And how many times on the phone?

A Twice, as I recall.

Q And give me the general time frames of when these phone or in-person meetings occurred.

A The first one, I believe, was August 21st. He telephoned to inform me of the case, and the suit, and some of the issues involved.

Q Are you talking about 2009 or 2008?

A No, 2009.

Q Okay.

A And I was unaware that a suit had become involved with the situation so he enlightened me as far as that goes.

And then one phone call had to do again with -- I don't -- I'm fuzzy. I don't remember all of the details, but it had to do with the fact of -- the question digitalis and digitalis toxicity and so on and so forth.

Q Okay. Have you billed Mr. Ernst any -- for any consultation time in this case?

A No.

Q Have you discussed Dan McCornack's case with anyone other than Mr. Ernst?

A Not in particular, no.

Q Not in particular makes it sound like somebody in general.

A Well --

Q I mean, obviously, you have to talk to your staff about the fact that you're coming down here today and logistical things like that. I'm talking about the substance of the case.

A No.

Q Are you licensed to practice medicine in California?

A Yes.

Q Are you licensed to practice medicine in any other states?

A No.

Q Do you have continuing medical education requirements?

A Yes.

Q I assume you keep up with those?

A Yes.

Q Have you taken any CME in the last five years or so that have to do with drugs that exert electrophysiological effects on the heart?

A Not specifically.

Q Do you have any subspecialty interests in

cardiology?

A As I mentioned, I'm certified in nuclear cardiology and interventional cardiology. Um, basically in general cardiology.

Q How much of your time do you think you spend in interventional cardiology?

A Over the past couple years, very little. We've brought in some partners who do most of that kind of work, so I've faded in that. But your certification carries through for ten years.

Q Do you see patients with heart failure?

A Yes.

Q Do you see patients with atrial fibrillation?

A Yes.

Q Let me ask you some general questions about scientific analysis and methods. When you went to medical school, I assume that one of the things that they taught you was sort of how to think in a certain way to approach the analysis of medical problems; is that correct?

A Yeah.

Q Okay. And among those methods of assessing scientific problems, did they teach you how to gather reliable data in order to reach reliable and accurate conclusions?

A Promise to do our best to do that, yes.

Q So ultimately, if you make a treatment plan, it's based on as much reliable accurate data as reasonably possible to get; correct?

A Yes.

Q So, for example, if an atrial fibrillation patient came to you and you were suspecting and analyzing whether they'd had myocardial infarction and what heart disease they have, are there certain laboratory studies available to you that you could order?

A Yes.

Q Are there certain imaging procedures available to you that you could order?

A That was mainly what I was thinking of when you asked the other question.

Q So there's imaging.

When I said labs, I mean things like a CBC, chemistry panels, INRs, cholesterol levels, things of that nature.

A Yes.

Q And then, of course, as any physician, you would take a history and do a physical exam; is that right?

A That's correct.

Q As a cardiologist, do you rely from time to time on electrocardiograms?

A Yes.

Q So in making a decision for this hypothetical patient that I'm postulating about, you could gather as much of that as was reasonable to order in order to make a decision about diagnosis and treatment; correct?

A Ordinarily, yes.

Q And do you want that information, when you order it, to be reliable?

A Yes.

Q So, for example, if there was an imaging center that consistently produced poor quality MRIs, or something like that, you might go to some other imaging center that produced consistently high quality MRIs; right?

A That's correct.

Q Hypothetically, if you were ever sued for medical malpractice, you would certainly want the expert on the other side to be using reasonable reliable data in whatever criticisms they were going to make against you; is that true?

A One would certainly hope so.

Q And you would hope they were using actual scientific methods in coming to their conclusions;

right?

A That's correct.

Q Are you a member of any medical societies or associations?

A The County Medical Society and American Medical Association, American College of Cardiology.

Q What's the American College of Cardiology Foundation?

A I don't know. There's several different branches. There's a Political Action Committee, there's a -- different ones under different names as far as granting grants for education and research, and that may be one of those.

Q Okay.

A I can't tell you exactly.

Q Do you have any special training in epidemiology?

A No.

Q Pharmacology?

A No.

Q Pharmacokinetics?

A No.

Q Do you have any special training in toxicology?

A No.

Q Do you have any special training in nephrology

beyond basic --

A Internal medicine training.

Q -- internal medicine training?

A No, I do not.

Q Do you consider yourself to be an expert in toxicology?

A No.

Q Are you still with Coastal Cardiology Group?

A Yes.

Q How many cardiologists are in that group?

A Twelve, 13. I think we just added one.

Q All right. How many years have you been with Coastal Cardiology?

A Since 1986.

Q Do you have any military service?

A No.

Q When was the last time -- well, I'm sorry. Let me withdraw that.

I asked you if you had any teaching positions and you said no. Have you ever had a teaching position?

A No.

Q Do you subscribe to or regularly review any particular medical journals?

A American College of Cardiology has a journal. I read that one.

Q What's the name of it?
A Well, there's -- yeah. The Journal of American Card -- College of Cardiology, and then there's also the Journal of -- Journal of Cardiology. It's not the correct name. I can't remember exactly what it is.
Q All right. Are there online resources that you use?
A Yes.
Q Such as?
A There's one called Cardio Source Dot Com that enables you to scan numerous journals.
Q Okay. Did you ever look at Cardio Source Dot Com to find out anything about the Digitek recall?
A No.
Q Have you ever looked at Cardio Source Dot Com for anything about digoxin toxicity?
A No.
Q What about diltiazem toxicity?
A No. I mean, certainly in years gone by I have, but not in the past, recently.
Q Did you do any research on that particular web site regarding anything to do with postmortem redistribution of digoxin?
A No.
Q How often do you look at medical journals and

the current periodical medical literature?

A Probably several times a week.

Q And then, on top of that, you get the CME requirements; right?

A Yeah.

Q How many hours of CME are you required to take either on an annual basis or every two years?

A It would be 25 a year.

Q Twenty-five hours a year?

A Yeah.

Q Is it your understanding that -- well, withdraw that.

Why do you spend so much time keeping current in the journals and keeping up with your CME?

A Cardiology has had a tremendous growth, since I've been in practice certainly. And on one hand the knowledge that you have from the past counts for a lot.

On the other hand, new knowledge is added all of the time. I think I learn as much in conversations with other physicians that are experts in whatever particular area the patient has.

I have a number of friends that are specialists in different areas, electrophysiology, interventional cardiology, that often have information far before the journals do. That's probably one of my greatest sources

of education.

Q Okay. I think a couple of things you were saying in there is that medicine advances quickly and it's important to keep up with those changes; correct?

A Yes.

Q Is that part of the reliability of data that I asked you about before? You want to make sure the data you're relying on is current?

A Yes.

Q Okay. Do you have the PDR in your office?

A Yes.

Q Have you ever been a consultant to a pharmaceutical company?

A No.

Q Do you know what an adverse event report is?

A I've heard of them. I don't know all of the details of them.

Q Have you ever made an adverse drug event report or an adverse event report to a pharmaceutical company?

A Not that I recall.

Q Do you prescribe medications -- I'm sorry. Withdraw that question.

Do most prescription medications have some risks?

A In general, yes. But not absolutely.

Q Okay. Do you prescribe medications that carry risks up to and including death?
A Yes.
Q Does that include calcium channel blockers?
A Yes.
Q Does it include digoxin products?
A Yes.
Q And when you make a decision to prescribe such a drug, I assume you are making an analysis that the benefits for your patient out -- exceed the risks to your patient?
A Yes.
Q Do you give handouts to your patients regarding the medications that they are taking for their heart?
A Sometimes yes; sometimes no. Some don't want them. Some do. And we don't ordinarily do it because the pharmacists are generally pretty good with that.
Q Okay. But, so I think what you're telling me is for something like diltiazem or digoxin, you would rely on the pharmacy to hand out the actual paper regarding those --
A That's correct.
Q -- drugs?
What about in general for a disease like atrial fibrillation, do you hand out information about that?

A That's available. I personally don't do it routinely. I usually have an extended verbal conversation with the patient and family.

Q Okay. Do you keep any cardiology texts in your home or office medical library?

A Numerous ones, yeah. We have -- I mean, ultrasound and interventional cardiology, and then the general Brown Wall and those other type of cardiology texts that are around the office all of the time, yeah.

Q Do you have Hurst's Cardiology?

A That's one of them. It ranks with Brown Wall, yes.

Q When you say "ranks with," they are widely regarded as some of the most reliable general cardiology textbooks?

A That's right.

Q Do you keep any toxicology books?

A Not specifically, no.

Q Other than the PDR about drugs, do you keep any others besides perhaps Goodman and Gilman?

A No.

Q Do you know what edition of Goodman and Gilman you happened to consult within the last couple of months about digoxin?

A It's probably been like ten years or older,

but, no.

Q In general, does renal function diminish with advancing age?

A Yes.

Q In your cardiology patient population, have you found it to be true that diseases like hypertension can adversely impact renal function?

A Yes.

Q Have you also found it to be true in your practice that a number of your patients need a number of different medications to control various disease states that they have?

A Many times, yes.

Q And is that called polypharmacy?

A That word could be applied I suppose, yeah.

(Discussion held off the record.)

BY MR. MORIARTY:

Q If a patient has underlying renal insufficiency, does it increase the risk that they can get an adverse drug event from drugs that are typically cleared by the kidneys?

A Yes.

Q Is diltiazem cleared by the kidneys?

A I believe in part that it is.

Q Digoxin is cleared by the kidneys?

A Yes.

Q So, renal insufficiency has the potential to increase the risk of digoxin toxicity?

A Yes.

Q How often do you prescribe cardiac glycosides for your own patients?

A It depends if they need them or not. Commonly.

Q I'm sorry. My question really was not very good.

In your practice, overall, I assume it's common for you to prescribe cardiac glycosides?

A Yes.

Q Is digoxin far and away the one you prescribe the most?

A Yes.

Q Do you have any estimate of the percentage of your patients that are on digoxin products?

A I guess between 10 and 20. That is a guess.

Q Have you been prescribing digoxin for other cardiac glycoside products for all of your cardiology career?

A Yes.

Q When was the last time you looked at a diltiazem label?

A Sometime within the past year, but not

recently.

Q Was it anything to do with this case or was it just in the general course of your practice?

A General course of practice.

Q Is diltiazem a calcium channel blocker?

A Yeah.

Q Now, in Mr. McCornack's case, what was the purpose for the prescription of diltiazem?

A To reduce the rate of the ventricular response to the atrial fibrillation.

Q In short, rate control?

A Yeah, ventricular rate control, yes.

Q For Mr. McCornack, would a secondary benefit be antihypertensive?

A Yes.

Q Are you the one who prescribed the diltiazem products for him?

A I can't remember. I know he's been on it for a decade, and I'm not sure who initiated the drug.

Q Do you know whether he was on any separate antihypertensives?

A I'd have to look at the chart.

Q You're welcome to do that at any point today.

A And I'm not sure when he was last in our office, but there's a note for November 2007 he was --

he was not on either antihypertensive medications.

Q Okay. It says in the diltiazem label under the warning section that concomitant use of diltiazem with beta blockers or digitalis may result in additive effects on cardiac conduction.

Is that consistent with your experience?

A Yeah.

Q Is it your experience that diltiazem can elevate serum digoxin levels?

A Yes.

Q I'm sorry, that's a "Yes"?

A Yes.

Q From your records, and any other information you have about Mr. McCornack, was he prescribed any medications with quinine or quinidine in them?

A Not to my knowledge.

Q Other than tonic water, are there commonly consumed food or beverage products that contain quinine?

A I'm not aware of them.

Q Have you seen the postmortem blood sample results from the NMS Laboratory in Pennsylvania regarding Mr. McCornack?

A Yes.

Q Did you notice that there were trace levels of quinine in his blood?

A Yes.

Q Do you have any opinion to a reasonable degree of medical probability as to what caused that?

A I can offer no insight.

Q In the Adverse Reaction section of the diltiazem label, it indicates that patients can get bradycardia first degree A.V. block, among others, including arrhythmias, bundle branch block, hypotension, palpitations.

Are those adverse reactions consistent with your experience?

A Yes. Well, some of them. I don't know that I've seen bundle branch block. But I've seen the others.

Q Okay. What sort of discussion would you have had with Dan McCornack when he started as a patient on digoxin?

A When I first met him, he had atrial -- bouts of atrial fibrillation, where most of the time the fibrillation was not present, but intermittently the fibrillation rhythm could occur and be bothersome to him.

When we first initiated digoxin, it was done with the hope of having some prevention of the atrial fibrillation in the first place. And, secondary to him,

when he did have atrial fibrillation, the heart would go -- the ventricular response would be relatively rapid, and it was uncomfortable to him.

So, generally, we spoke about, first of all, trying to prevent the fibrillation, and second of all, when it did occur, to lessen his symptoms from that.

Q Okay. And what discussion would you typically have with a patient like Mr. McCornack about the risks and complications of digoxin therapy?

A In his case, I'd tell him that the ordinary risk of life and death are minimal as best we can tell, in the ranges we would intend to use them.

In some patients whose heart rate has a tendency to go slow, we do have to worry about slow heart rates.

In his case, it was always going faster than what was comfortable or good. So I'd tell him to be aware of things becoming very slow, whatever. But that was not much of an issue on him because of the rapid ventricular response.

Q What would you typically tell him to look for as adverse reactions to a digoxin product?

A Well, in terms of the heart rate too fast which he was aware of. Too slow would be dizziness, light-headedness, slower pulse, shortness of breath,

tiredness, fatigue, lack of energy.

The digitalis toxicity, we told people about the nausea, the lethargy.

You know, back in the old days when we had the mixed, we would sometimes have more, call it change of vision, that sort of thing. In this case, because we checked the levels and that sort of thing, it was really a nonissue.

We usually explain the fact that the digitalis doesn't act right now. I mean, you could take a pill right now, it may not have an effect for -- well, in starting off pills it takes four or five days for the level to become therapeutic.

So we have some people that would have a very rapid heart rate if you take a drug such as Allopurinol or Inderal, which is rapid onset, rapid acting. If you take a pill now, you should see the results within a couple hours.

Where with the digitalis, we don't expect immediate results. It takes a while.

Q Okay. For atrial fibrillation patients, do you have a particular target range for a serum digoxin level that you're looking for?

A Mainly we try to avoid going above 2.0. The effect of digitalis in some people is that they can have

slow heart rates at a far lower level. These are the drugs, the limitations of its use are generally approaching the level of 2.0 or also slower heart rate.

Q So you don't have some floor where you are trying to keep your patients at .5 to 1.5 or something like that?

A No. Because some people would be going way too slow even a level of .5.

Q And have you seen instances where different laboratories have different normal ranges for digoxin?

A Yes.

Q So typically I see .8 to 2.0. What other ranges have you seen?

A I don't recall any that would -- again, the uses of the digitalis, some of them can be for congestive heart failure where you're looking for anatrophic effect or increased contractility of the cardiac muscle, in which case I would then pay more attention to be sure that I have the lower number in a working range type of thing. That's unusual for us because other drugs involving. We try to keep things below the 2.0. But yes, different labs reported different numbers over the years, and I can't cite you a chapter and verse.

Q So, if you are looking at a patient -- I'm

sorry. Withdraw that question.

Were you practicing when the .50 milligram dose was still commercially available?

A Likely.

Q Were you a practicing cardiologist in the early to mid '90s?

A Certainly.

Q Okay. Now, from time to time, have you diagnosed digoxin toxicity in your own patients?

A Yes.

Q How many times do you think you've done that in your career?

A In terms of chemical digitalis toxicity as far as digitalis levels being excessive of 2.0, it's been probably dozens.

In terms of them presenting in the emergency room with clinical digitalis toxicity and rhythms of that, it would probably be five to ten.

Q Okay. Let's get -- make sure we're communicating on the same wavelength.

If somebody has a serum digoxin concentration while they are alive, of greater than 2.0, do you automatically diagnose them with digoxin toxicity?

A If you're -- if you're talking about a clinical syndrome of symptoms and signs, not necessarily.

Q Okay. Isn't digoxin toxicity a syndrome of clinical signs and symptoms?

A It can manifest in a number of different ways. Not always the same in every patient.

Q Is digoxin toxicity considered a laboratory diagnosis?

MR. ERNST: Objection.

Just because I made an objection doesn't mean you can't answer the question. It means I've made an objection for a court to determine later. If you can answer, go ahead and answer the question.

THE WITNESS: Yeah. I guess I would personally consider a person to be digitalis toxic if they had a level above 2.0 and then there becomes a variation of that.

I've had people who did have digitalis levels higher than that but did not manifest the clinical symptoms as far as more adverse cardiac arhythmias, or nausea, vomiting or visual changes, but I would consider them to be -- again as a relative term, we have people with digitalis levels come back in different ranges. If they are mildly elevated I don't know that I would call it necessarily toxic. How you transition from mildly elevated to toxic, I guess that would be somewhat arbitrary.

BY MR. MORIARTY:

Q Well, just because somebody has an elevated serum digoxin concentration does not mean they have clinical signs and symptoms of digoxin toxicity?

A That's correct, yes.

Q Just because somebody has elevated serum digoxin concentrations does not necessarily mean that they have arrhythmias that would be detected on an electrocardiogram?

A That's correct.

Q And certainly just because somebody has an elevated digoxin concentration is not in and of itself fatal; right?

A That's correct.

Q Is there any serum digoxin concentration that you're aware of that, in all cases, is fatal?

A No. I guess I've not seen digoxin levels of ten, but...

Q So, for the most part, if you were going to make a complete diagnosis of digoxin toxicity, would you want to have, optimally, a serum digoxin concentration, some clinical evidence and electrocardiographic evidence?

A Yes. In my training, I -- in the earlier years, we had use of digitoxin and sometimes even more

of a mixture digitalis glycosides.

It seems to me, my understanding is that the symptoms of the nausea, visual changes, those types of things, were much more common in the patients that had the nondigoxin, or the additional more complex associated derivatives.

With the digoxin by itself purified, a lot of times we don't see the nausea or things like that. We just see the patient who is there because of arrhythmia type problems. They don't always manifest the secondary visual or G.I. symptoms.

Q Are these people who you are seeing by coincidence and they have an abnormal rhythm, or do they have some clinical --

A They come to the emergency room because they are feeling sick because the heart is racing or going too slow.

Q Okay. Is digoxin toxicity relatively common?

A No.

Q Is it a well-known phenomena among physicians like you who prescribe the drug?

A Yes. And I think part of it dates back to when I was in medical school in the seventies. There were articles coming out that stated they felt a third of the -- or actually 20 percent of hospital admissions

were related to digitalis toxicity. That was for the pre-digoxin era.

Q To the best of your understanding, patients can get digoxin toxicity clinically, or elevated levels even though they are on normal doses of the drug?

A Yes.

Q How come patients can get elevated levels or digoxin toxicity even at normal doses?

A We don't always know why. There are certain other medicines which can adversely affect renal function or some other illnesses can intervene. Sometimes it just seems to happen.

We're never completely sure what doses the patients are taking at home. There can be some unexpected, as you mentioned, renal dysfunction that we don't have awareness of.

Q Are you done with your answer?

A (Witness nods head up and down.)

Q I don't want to cut you off.

A Yes.

Q So to go at this another way, things like illness or other medications that would reduce renal clearance could increase digoxin levels; correct?

A Yes.

Q Other medications can do that through one

mechanism or another; is that true?

A Yes.

Q Things that decrease --

A Glomerular filtration rate.

Q That goes into renal insufficiency; correct?

A Yes.

Q Things -- drugs or illnesses that would reduce the distribution of a drug throughout the body might drive levels up, is that true, or do I have that backwards?

A Digitalis is transported and taken up by muscle, and someone been on a chronic dose for a long time and undergoes a major muscle wasting illness, I guess that can do something.

Q Volume depletion; correct?

A (Witness nods head up and down.)

Q Okay. And electrolyte abnormalities can do that; is that right?

A They can be associated with digitalis toxicity. They don't necessarily -- anything that could affect the renal function, nonsteriodal antiinflammatory agents, diuretics, other medicines can change how it is.

Q And I think you said sometimes you just don't know why a level is elevated; is that right?

A That's correct.

I guess, again, you're getting my clinical gestalt from years, but commonly it -- more commonly it's in the elderly person who has multiple things going on and multiple drugs coming and going, and has a significant impaired renal dysfunction in the first place.

Q Do you typically draw serum digoxin levels on your patients who are chronically taking --

A Yes.

Q -- the drug?

A (Witness nods head up and down.)

Q How often do you tend to draw those levels?

A We usually draw them much more frequently as we're getting the drug set up and into use. Once they've been, if you will, stabilized in a pattern, we would check them several times a year.

Q Okay. And then is there an optimal time to draw the serum digoxin level following the last dose?

A In general, we try to have all of the digoxin levels drawn at least seven hours after the last oral dose.

Q Why?

A Levels drawn earlier than that may be elevated.

Q Because it has not distributed to steady state?

A That's correct. Taken in the stomach, being transported by the bloodstream throughout the muscle cells. For a while, it can be elevated.

Q Under that window of time it's still too close to the peak plasma level; correct?

A It may be, yes.

Q Do electrolyte imbalances, particularly potassium, play an important role in the etiology of digoxin toxicity?

A Yes.

Q Can potassium levels, whether elevated or below the appropriate range, cause digoxin toxicity?

A They can certainly enhance it.

Q Okay. Is the same true with calcium?

A Yes.

Q Now, can -- I'm probably not going to get this right, but can elevated potassium levels cause arrhythmias?

A Yes.

Q Life threatening arrhythmias?

A More commonly it's cardiac slowing and standstill. But, yeah, slower rhythms.

Q And can abnormal calcium levels do the same thing?

A To some extent, yes.

Q Would BUN, creatinine and/or the estimated glomerular filtration rate be some of the measures you would look at in determining renal sufficiency?

A They are the main standards.

Q Okay. If a patient has an elevated BUN or creatinine, or low GFR or some combination of those, that would be at least a potential sign of renal insufficiency which could then increase the risk of digoxin toxicity; correct?

A Yes. Although I think Mr. McCornack is a pretty muscular guy, and sometimes young muscular people, because the BUN, creatinine for those can be -- frail, elder women can be low levels. Where young, muscular guys can kind of be at the upper end.

Q Do you know whether Alli -- he was on a gout medication, Alli --

A Allopurinol.

Q Allopurinol. Do you know whether that can increase digoxin levels?

A I don't know specifics.

Q Do you know if it decreases renal clearance?

A It's not a major player. It may alter it slightly.

Q Was Mr. McCornack on any diuretics?

A Not to my knowledge.

Q Okay. Your staff was kind enough to e-mail your C.V.; correct?

A Correct.

MR. MORIARTY: Can you mark that as Exhibit 1.

(Defendants' Exhibit 1 marked for identification.)

BY MR. MORIARTY:

Q Is this your C.V.?

A Best I can tell, yes.

Q Are there any significant speeches, publications or research grants that are not --

A No.

Q -- on that C.V.?

A No.

Q All right. In your -- in your cardiology practice, do you have other patients who are claiming to have suffered injuries as a result of taking Digitek, to your knowledge?

A I think over the past year or two a couple have popped up. But when we check levels, either we're far enough from the time the pills had been used or the levels were drawn that were not of concern. So nothing more than one of the number of other things that popped up as questionable circumstances.

Q Have you looked at any statements online about

what the FDA is currently saying about the Digitek recall and the likelihood that Digitek tablets caused harm to patients?

A No.

Q Are you aware of any published medical literature which says that digoxin products themselves cause renal failure?

A Not in usual doses.

Q Okay. All right. Let's talk about Dan McCornack a little bit here. May I see that chart? You had your staff e-mail your chart up here; right?

A Looks like part of it, but, yes.

Q Do you keep all of your medical records electronically?

A Yes.

Q My notes -- my notes indicate that you actually saw Mr. McCornack going back to something like 1992, but the medical record that I brought with me from Ohio only goes back to about 1998 or so.

A That may have been when the medical records was initiated in our office. The previous paper notes didn't always get carried over.

Q What would have happened to previous paper notes that were kept in his chart prior to the creation of an electronic record?

A They were ultimately destroyed.
Q Do you know when they were destroyed?
A Seven or eight years afterwards, I guess.
Q Do you have independent memory of when Dan McCornack started with your office as a patient?
A No. There was one note in -- well, Dr. Roger Winkle's note mentioned that he's been a patient of Dr. David Harvey, who had been with our group. He'd joined our group at some point in the past. Again, I can't tell you the year. That would have predated that as well.
Q Okay. When did Dr. Harvey retire?
A He actually left the group. I believe he's still in practice in Texas. I don't remember the year.
Q Now, according to the records Mr. McCornack had, he was diagnosed with atrial fibrillation at about the age of 22. Is that consistent with your memory?
A Yes.
Q What is the significance, if any, of such a early onset of A. fib?
A It happens. And going back to your original -- one of your earlier questions, we usually will check the patient out with cardiac ultrasound. Check the thyroid panel, look for any other signs of underlying problems that may cause the fibrillation. In his case, no other

cause was found. It just happens sometimes.

Q Is it unusual?

A Uncommon, certainly, yes. Most 21 year olds, 22 year olds don't have atrial fibrillation.

They do have other -- well, never mind. They do have other fast heart rhythms, but on occasion.

Q Because he had to live a long time with atrial fibrillation, did it increase the risk of him having sudden cardiac death?

A Relatively small.

Q Why relatively small?

A Well, as long as the fibrillation -- I think if you take 100,000 people with atrial fibrillation and 100,000 people without, that being the only variable, there's probably a very slightly higher rate of complication; strokes and so forth than that. But if the heart is otherwise normal in its structure and other factors, the difference is very, very small and difficult to measure.

Q Okay. Is sudden cardiac death a risk of atrial fibrillation?

A Ordinarily, if that's the only problem, the answer is no.

Q Not a risk at all? I mean, elevated above the general population?

A There's a very small chance of having clots develop in the atrium. If those clots break lose and go someplace to the heart itself or the brain, that could cause cardiac death, but that's very unusual.

Q Did Mr. McCornack have hypertension?

A Yes, mild.

Q Do you have an opinion as to the cause of his hypertension?

A Ordinarily, it's essential, which means it happens.

Q Well, is it genetic or is it based on his weight or don't you -- is there no way to know?

A Um, your -- most people are born with a hat size, a shoe size, and you have a blood pressure size. A certain percentage of peoples blood pressure is higher than what is the desired amount, which would be 140 over 90 or dropping 130 over 80. Statistically, as the blood pressure goes higher those people are more likely to have vascular injury as the years go by. For years, they thought it might be due to renal artery obstruction or things like that. But very often you look and there are no causes. The blood pressure is just higher than what is in their best interest.

Q As a result was Mr. McCornack felt to have arterial sclerotic heart disease?

A There was no evidence of that.
Q Ever?
A Well, most of us will have some plaquing in our arteries. We don't like to think about it, but we do. As far as that progression to the point of angina pectoris or myocardial damage, there was no clinical evidence of that.
Q Did you ever advise Mr. McCornack to lose weight?
A Yep.
Q Most visits?
A Half the time.
Q He met the medical definition of obesity, did he not?
A I don't know what criteria he used. In my mind, he was not obese. He was certainly heavier than ideal.
Q Why did you advise him to lose weight?
A Well, he also -- his lipids were elevated, his cholesterol, those types of things. Ordinarily, people do better to have lower weight and lower cholesterol.
Q Did he report to you on a number of occasions that he had a lot of stress related to his work?
A On occasion.
Q Did you advise him to stop chewing tobacco?

A Yes.
Q Why?
A Well, the incidence of oral lesion is higher with tobacco products.
Q To your knowledge, does oral tobacco product -- I mean chewing tobacco products pose any increased cardiac risk?
A No.
Q Are you familiar with the new 2007 ACCFAHA guidelines on the management of atrial fibrillation?
A Yes.
Q I'm sorry?
A Yes.
Q If you were to classify Mr. McCornack's atrial fibrillation, how would you have classified it in 2007 when you last saw him, which I believe was in November?
A I would classify him as idiopathic atrial, lone atrial fibrillation. Atrial fibrillation, not necessarily in conjunction with other major risk factors.
Q Was it recurrent?
A It had begun as being rare and infrequent. Had become recurrent, and then had progressed into, we believe, chronic atrial fibrillation.
Q Is chronic pretty much the same as permanent

and persistent?

A Yes.

Q Was it paroxysmal?

A That would have been the intermittent phase.

Q Was it symptomatic?

A Yes.

Q What were his A. fib symptoms?

A Initially, when it happens, go into a sudden change from a stable rhythm to a fibrillation. People feel the palpitations. Sometimes they can have some chest discomfort, sometimes sweaty. At times in the earlier years he would have things such as that. Later on he noticed the palpitations, didn't have the chest pains so much. And certainly as it became chronic, he noticed he had less exercise tolerance. He couldn't perform as well physically as originally.

Q Did he complain of fatigue?

A Yes.

Q So, his diltiazem was for rate control with his secondary benefit of antihypertensive.

What was the focused purpose of the digoxin prescription?

A Rate control.

Q Is it common for you as a cardiologist to prescribe more than one drug for rate control in atrial

fibrillation patients?

A Not unusual. I guess maybe 20 percent.

Q Well, why would -- why the need for two different drugs for rate control in Dan McCornack's A. fib?

A Um, it relates back to each individual and the properties of atrial ventricular node. Its the ability to conduct the fibrillation signals through the ventricles.

Some people's A.V. node is able to conduct much more rapidly than others. Others are slower. He happened to have a relatively rapid rate of conduction to the atrial ventricular node.

Q Is that a way of saying he really needed more umph or more therapy to control his A. fib?

A I guess I wouldn't use the word "umph." He needed more breaks on this.

Q More breaks. Okay. That's good.

A More retarding.

Q Okay. And sometimes it's more efficacious to combine two different therapies than to just give higher doses of one; correct?

A Their affects can be additive. And there are limitations on how much diltiazem you want to give and how much digoxin you want to give.

Q Okay.

MR. ERNST: We've been going an hour. Are you uncomfortable? Do you want to take a break?

THE WITNESS: So far so good.

MR. ERNST: Okay.

MR. MORIARTY: Could you mark this as Exhibit 2, please?

Q Dr. Von Dollen, I've had this marked as Exhibit 2. That's NMS Lab's report dated June 24th, 2008, regarding a postmortem blood specimen for Dan McCornack.

(Defendants' Exhibit 2 was marked for identification.)

BY MR. MORIARTY:

Q Have you ever seen that before?

A Yes.

Q Did you receive that from Mr. Ernst?

A Yes.

Q How long ago did you receive it from Mr. Ernst?

A Two days ago. Somewhere over the weekend. He showed it to me. I've not received a copy of it.

Q But you didn't see this until very recently?

A That's correct.

Q I'd like you to go to the second page. Item Number 2 is a statement by NMS Labs from their computer

system, about diltiazem. Do you see that?

A Yes.

Q And, at least according to what NMS Lab says, the last sentence says, "In addition, diltiazem is reported to undergo postmortem redistribution with an average heart blood/femoral ratio of 2.6."

Do you see that?

A Yes.

Q Do you have any reason to disagree with that?

A No.

Q And at least according to NMS Labs, Mr. McCornack's postmortem diltiazem level of 630 would be three or more times the normal antemortem diltiazem level; is that fair?

A 630 -- I'm sorry. You were saying that the 630 would be three times?

Q The normal antemortem diltiazem level, at least as reported by NMS?

MR. ERNST: I'm sorry, I didn't mean to interrupt you, Counsel. I thought you were finished.

Objection. Once again, I'm making an objection for the record. His question stands and you can answer it if you can.

THE WITNESS: Yeah, I mean, if you accept the therapeutic blood levels between 50 and 200, and this

was 630. That would be three times that.
BY MR. MORIARTY:
Q Okay. Do you have some other understanding of what therapeutic diltiazem levels are?
A No.
Q Okay. Would -- if this lab information was presented to you when Mr. McCornack was alive and you looked at it and his level was 630, would you say that he was diltiazem toxic?
MR. ERNST: Objection.
THE WITNESS: Um, not ordinarily.
BY MR. MORIARTY:
Q Okay. Why?
A Different, quote, unquote, therapies are reported for different situations, and I would have to ask them if there are other situations in which other numbers might be acceptable.
If it's for use of hypertension, if it's used for rhythm control, if it's used for vaso spastic angina. I don't know if there are other values that have been thought to be acceptable under different circumstances.
Q Part of what you are telling me is that the number 630 doesn't tell the whole story; correct?
A That's correct. And the other part of the

question is what's thought to be a quote, unquote, therapy, what is then, if you will, the therapeutic index or the toxic range.

Q And in order to assess the meaning of this number, you'd want to know how reliable it is as a predictor of a toxic level in a living patient; correct?

A That's one side is a therapy, therapeutic, the beneficial effect, what things you have to go to before you have adverse effects.

Q Okay. Did you ever diagnose Mr. McCornack with diltiazem toxicity?

A No.

Q When you looked at this report when you were talking with Mr. Ernst, did you talk about the diltiazem level?

A It was mentioned as it went by, but no conversation led after that.

I guess I just have to say, in clinical practice we have a lot of people on diltiazem over the years, and ordinarily within the prescribed dosage levels we've not really encountered diltiazem toxicity.

Q When you see an elevated level like this in a in a postmortem blood specimen, it doesn't automatically lead you to conclude that he took an excessive dose, does it?

A That's correct.
Q Are atrial fibrillation patients at risk of clots?
A Yes.
Q And, typically, atrial fibrillation patients get an anticoagulant, do they not?
A Over the years they have. Under recent guidelines and in many situations it was lone atrial fibrillation they don't get anything more than aspirin.
Q Why didn't Mr. McCornack get an anticoagulant?
A Again, he may have had mild hypertension, but there would be no other major structural heart disease. He was in the lower risk of clots in the first place, and therefore he didn't get the Coumadin.
Q Okay. Did he ever express to you some hesitance to take Coumadin because of his lifestyle?
A Yes.
Q Did you ever sign a death certificate for Dan McCornack?
A Not that I recall.
Q Were you ever asked to by the Santa Cruz County Coroner?
A Not that I recall.
Q Do you remember ever having any discussion with the Santa Cruz County Coroner yourself?

A Not that I recall.

Q Were you aware that your office faxed medical records regarding Dan McCornack to the Santa Cruz County Corner's office at their request after he died?

A Well, in reviewing the chart today, I saw the slip, but I can't remember at the moment if the call came in, if I was in composition of that then or not.

Q Now, within weeks of Mr. McCornack's death, the coroner issued an autopsy report, and then there was a death certificate associated with that. Are you aware of that?

A I have heard that it happened, but I don't know the timing or...

Q Have you ever seen the original autopsy report --

A Yes.

Q -- or death certificate for Mr. McCornack?

A Yes.

Q I deposed Dr. Mason, the coroner, last Thursday afternoon in San Jose, and the day before, in other words, Wednesday of last week, he issued an amended death certificate and autopsy report. Have you seen those amended reports?

A No.

Q Do you know what the new articulated cause of

death sequence was?

A I believe the digitalis intoxication was mentioned on that. Again, that's word of mouth what Mr. Ernst mentioned.

Q Do you know what the basis was for Dr. Mason changing his opinions and his reports a week ago?

A No.

Q Mr. -- the notes that we have put together regarding Mr. McCornack indicate that by 1994 and onward he was pretty consistently getting .50 milligrams of digoxin a day split between 2.25 milligram doses. Are you aware of that?

A Yes.

Q And whether or not you are the one who actually started him on that dose, you continued him on that dose for some years; correct?

A I likely was the one who started him on it because we tried some other medications in place of those earlier that he hadn't tolerated.

Q Such as Androderm?

A Yes, and also beta blocker.

Q So what was the rationale behind the dosing regimen of .25 twice a day?

A Ordinarily, as long as you get the dose within 24 hours, the effect should be relatively the same.

Some people feel better having the split dose.

There's many antihypertensive agents that are supposedly covered 24 hours quite well, don't do quite as well for 24 hours. Digitalis covers long enough that you wouldn't expect that. But diltiazem had to go twice a day. It's just easy to do digitalis a day as well.

Q Was he on diltiazem doses per day?

A I have to check the record. At different times he was and other times he was wasn't, I believe.

Q Let's just go to 2007.

A Yes, he had the 300 and then he had the 180.

Q Same exact drug, but just two different doses?

A Right. They are supposed to be long acting to cover 24 hours as well, but sometimes they don't completely cover a 24-hour period as well if you give it in divided dosage.

Q Okay. Now, do you remember hospitalizing Mr. McCornack at Twin Cities in 1994?

A I believe he was admitted for a cardioversion, but I can't remember more than that.

Q Would it be likely that during an admission for cardioversion he would have been administered I.V. digoxin products?

A Not usually, but possible.

Q Okay. At any point, to your memory or from

whatever records you have available to you today, did Mr. McCornack -- was he prescribed digoxin doses higher than .5 per day?

A In my chart notes there was some mention of trying a higher dose temporarily. But, ordinarily, I wouldn't. I can't say for sure.

Q Okay. I'm just wondering if, during an admission, perhaps he was given higher I.V. doses?

A Sometimes if a person comes in for a cardioversion for atrial fibrillation, and the cardioversion is done and the sinus rhythm is restored, if we have concerns about loss of the rhythm again, we'll sometimes give additional antiarrhythmic of sorts. Which, if we thought a digoxin level was low, we could possibly give him some I.V. digoxin as a one time deal to help prevent the fibrillation from occurring.

Q I'm looking for a particular note in your chart. Okay. Do you have your February 16, 2000, office note with you? February 16, 2000?

A It's not in the sequence here. I can keep looking if you'd like. Yes, here it is.

Q Okay. I'd like you to look at that note under the Chief Complaints section.

Well, I'm sorry, first look at the Current Medications. According to this, he's getting Lanoxin,

.25 milligrams, one tab BID. Do you see that?

A Yes.

Q And then under Chief Complaint, the third line down, it says he doubled up on his Lanoxin.

A Uh-huh.

Q Do you remember this incident?

A Just vaguely, yes.

Q What does it mean in your History section when it says he doubled up on his Lanoxin?

A Um, usually he would take a double dose of the medication. And some people will do that as -- if they feel the heart racing, they'll want to take an extra dose to stop it.

They -- as I recall -- I can't recall with clarity, but ordinarily we would like to put a dose or two the first day or two at most, perhaps even a one shot deal from how the note goes down lower, which would not necessarily imply a chronic doubling of the dose for extended periods of time.

Q Well, he felt -- under Chief Complaint it says, "He felt terrible on the first. Hands tingling and going numb. Heart doing flip-flops, light-headed, neck and chest pains."

You see that; correct?

A Correct.

Q Would it be fair for me to conclude that you, as a cardiologist, in looking at this and nothing else, would think he was having --

MR. ERNST: Let's go off the record.

(Interruption in the proceedings.)

(Record read.)

MR. MORIARTY: -- some episode of atrial fibrillation?

THE WITNESS: That's correct.

BY MR. MORIARTY:

Q Okay.

A But he was notoriously inaccurate about feeling -- I shouldn't say "notorious." He was -- many times he would not think that he was in fibrillation and thought he wasn't, and vice versa, and his symptoms didn't correlate real well all of the time.

Q Okay. But at least, according to what you believe, he would have taken, when it says he doubled up on his Lanoxin, instead of taking .50 per day, he was taking one --

A One milligram.

Q -- milligram per day?

A At least on one day, if not several.

Q Do you know how many days --

A I'm sorry, I don't.

Q -- he did that?

And I don't see anywhere in here that you diagnosed him as having digoxin toxicity; is that correct?

A That's correct.

Q Did you even run a digoxin concentration level?

A No. I have to check the record, but I don't know that I did. Certainly, if he had remained on it for an extended period of time I would have. But a one- or two-shot deal we would not have done that.

Q When you say "a one- or two-shot deal," if a patient were to either intentionally or inadvertently take a double dose for a day or two, that ordinarily would not lead to digoxin toxicity; is that correct?

MR. ERNST: Objection.

BY MR. MORIARTY:

Q Correct?

A That would be correct. Again, it depends on the patient.

We have some elderly people have a lower GFR. You have a younger person such as him who had a relatively stable level and normal GFR, we would not ordinarily run a level.

Q In looking at every medical record I had available to me I didn't see a single GFR lab result.

Do you know if there were any on Mr. McCornack in the last five years of his life?

A Not that I know of, no. Ordinarily, the GFR is calculated from the BUN and creatinine and albumin, so the BUN and creatinine are pretty good markers as far as GFR is going to be. It would be unusual to do one.

Q It would be hard to do a calculation now, just based on his BUN and creatinines that are in the charts because you wouldn't really know if he was in volume or not; correct?

A That's correct, yeah. But it's supply, production, removal process. If you produce more, it's going to be a little bit higher. But if it's removed rapidly...

Q Are there patients who can have consistently and safely taken a digoxin dose who suddenly become toxic even if they are on the same dose?

A It's possible, yes.

Q Okay. Or, instead of using the word "toxic," people could have taken the same dose consistently and safely, and had an elevated level for some reason?

A Yes.

Q Have you ever seen any serum digoxin concentrations for Mr. McCornack, while he was alive, that were elevated?

A Not to my recollection.

Q Did you ever see any medical records to indicate while he was alive that he had digoxin toxicity?

A No.

Q If a patient consistently took a double dose, for example, would you expect at some point that they would demonstrate signs or symptoms of toxicity?

MR. ERNST: Objection. Go ahead and answer the question.

THE WITNESS: Sometimes, yes. Sometimes, no.

BY MR. MORIARTY:

Q All right. Mr. McCornack consistently had elevated uric acid levels. Are you aware of that?

A I didn't recall, but usually that's what Allopurinol is used for.

Q If Dr. Lemm attributed his elevated uric acid levels to gout, would you have any reason to disagree with him?

A Well, a gout is a symptom of elevated uric acid given the clinical signs. But, yeah, they go hand in hand.

Q What's the cause of the elevated uric acid level?

A It happens.

Q Mr. McCornack consistently had elevated SGPT levels. Were you aware of that?

A Yes.

Q Did you have any opinion to a probability as to the cause of that?

A Don't know. It could be a hepatitis. Sometimes people that -- although he was not obese, as best I can tell, some people will have a fatty liver. I don't know the cause of that.

Q And several times I've said, "Do you have an opinion to a reasonable degree of medical probability?" What is your understanding of "reasonable degree of medical probability" in expressing an opinion in this setting?

MR. ERNST: Objection.

THE WITNESS: I'm sorry, I don't quite understand.

BY MR. MORIARTY:

Q Well, I don't want you to guess or speculate.

When I ask, do you have an opinion to a reasonable degree of medical probability, do you understand that I mean a certain level of scientific accuracy?

MR. ERNST: Objection.

\\

BY MR. MORIARTY:

Q Go ahead.

A I guess I would question whether an alternative way of saying that, if you had a list of ten choices, and choice number one would be -- happen over 50 percent of the time, I would say that would be the most probable and most likely.

Q Okay.

A Does that make any sense?

Q Sure. So you're equating likely with more likely than not or greater than 50 percent?

A All things considered, I would think so.

Q Okay. And in order to form opinions about particular subjects, do you think it's important that it be something within your subspecialty and that you have the basic reliable data to express an opinion?

A Hopefully.

Q All right. So, if I asked you a string of opinion questions about orthopedic issues, you might decline because it's not your specialty; fair?

A Unless I happen to have some independent knowledge in a particular area.

Q Sure. Mr. McCornack had elevated BUNs on nine occasions between June of 2001 and May of 2007. Do you have any opinion to a reasonable degree of medical

probability as to the cause of that?

A My best would be the fact that that's a normal variance among the population. Get young, healthy, muscular guys, their BUNs and creatinines tend to run a little bit higher just because of the muscle mass.

Q Are you aware of any serum digoxin concentration draws after May 15, 2007?

A I don't have my records here, but no, I'm not aware of any.

Q Have you ever done any research about postmortem redistribution of digoxin?

A No.

Q Have you ever done scientific lab studies about postmortem redistribution of any drug product?

A No.

Q And I guess my first question wasn't very clear. When I say, have you done any research about it, I meant in reading the medical literature.

A Not until looking at the Goodman and Gilman or PDR.

Q In your career as a cardiologist, how many times do you believe that you have looked at and analyzed postmortem blood levels?

A I'm sorry. Very, very rarely. Almost never.

Q All right. Have you ever, to your memory,

encountered postmortem diltiazem levels before?

A No.

Q Before looking at Exhibit 2 in the last few days, how many times in your career do you think you've encountered postmortem digoxin levels?

A Probably less than half a dozen.

Q What were those circumstances in those other instances where you did encounter postmortem digoxin levels?

A Ordinary -- well, there would be someone who died unexpectedly, and they're very ill, we didn't know why they had died, and we might ask the pathologist to go back and draw all sorts of levels to see what was there.

Q Did you ever talk to the pathologist about the meaning and significance about postmortem digoxin levels?

A It's been so long ago, I don't recall.

Q Do you know anything about the degree to which postmortem digoxin levels are reliable indicators of antemortem levels?

A Other than the article Dr. Ernst ran by me, I don't.

Q Dr. Ernst?

MR. ERNST: I am a doctor.

MR. MORIARTY: You've been promoted.

MR. ERNST: I am a doctor.

MR. MORIARTY: If he gets the promotion, I get the promotion.

MR. ERNST: You can have the promotion. And Alicia, too.

BY MR. MORIARTY:

Q Is it your understanding, in general, that concentrations postmortem do not necessarily reflect those at the time of death?

A I couldn't answer, because some things can vary tremendously and some I would expect wouldn't vary much.

Q Do you have any information about when Dan McCornack took his last digoxin dose before he died?

A No.

Q And I assume that you haven't seen any EKGs or serum digoxin concentrations that were taken unbeknownst to me in the last 24 hours before he died?

A That's correct.

Q Has anybody explained to you or have you read anything to indicate that he had clinical signs or symptoms of digoxin toxicity the day before he died?

MR. ERNST: Objection. Go ahead answer the question.

THE WITNESS: The only thing -- the only way I

could answer maybe what was put in the deputy's report per the response to the family's call to distress.

BY MR. MORIARTY:

Q There was nothing in there to lead you to think, clinically, that he had digoxin toxicity?

A Sounded like a usual day.

Q Would it be fair to say that he had sudden death?

A Sounds very likely.

Q Let's start there.

MR. ERNST: Objection.

BY MR. MORIARTY:

Q Let's start there.

A Sounds very likely.

Q Is it likely that he had sudden cardiac death?

MR. ERNST: Objection. You can go ahead and answer the question.

THE WITNESS: Most likely, yes.

BY MR. MORIARTY:

Q Okay.

A In the pathologist's report a lot of other things didn't happen, like G.I. bleeding and pulmonary embolis.

Q Sure. Do you know anything about the reliability of postmortem blood sampling as it relates

to the time that the sample is drawn from the corpse after death?

A No.

Q So, to put it another way, you don't know whether a specimen drawn at two hours is more or less reliable than a specimen drawn at 72 hours?

A That's correct.

Q Have you ever seen any evidence that Dan McCornack took a digoxin tablet that had a dose of digoxin in excess of the labeled amount?

A I'm unaware of that.

Q In the summer of 2007, did you refer Dan McCornack to Dr. Winkle at Stanford?

A If that was the date of this consultation, yes. I'm not sure of the years.

Q Okay. Why Dr. Winkle at Stanford?

A In the treatment of atrial fibrillation -- well, numerous nonmedical attempts have been tried or developed to stop or treat atrial fibrillation, and Dr. Winkle has expertise in that field of electrophysiology where with a catheter procedure they can sometimes damage the parts that are causing the fibrillation and restore normal rhythm.

Q Well, I guess my question is, are there people in San Luis Obispo or Paso Robles, or even San Jose who

have expertise in radiofrequency ablation?

A Not in our county. But there are other communities, other parts of the state.

Q Okay.

A I just happen to know Dr. Winkle for a long time, and he's been a very solid guy who is sort of leading the field in many ways.

Q Okay. And from your understanding of Dr. Winkle's consult note, did he recommend that Dan have radiofrequency ablation?

A I would have to check the terminology, but I believe he advised him that he would be someone who may benefit from the procedure.

Q When you saw Dan at subsequent visits, did you echo Dr. Winkle's sentiment that Dan may be one of those people who could benefit from the procedure?

A Yes.

Q And if Dan had had the procedure, would that most likely have reduced his reliance on the combination of diltiazem and digoxin to control his heart?

MR. ERNST: Objection.

THE WITNESS: That would be the intent of the procedure.

BY MR. MORIARTY:

Q Does RFA typically eliminate the need for those

drugs all together?

A Um, in the majority of cases, yes. Not always.

Q Did you ever have any discussions with Dan McCornack in the summer or fall of 2007 about whether he was going to have that procedure?

A I don't recall. We had -- we were going to set him up -- you have notes there. Make another attempt at cardioversion. But, ordinarily, once you've been in fibrillation as long as he had, it would not be likely to be a long-term success.

Q What would not likely --

A The cardioversion shock and rhythm defibrillation back to sinus rhythm.

Q Why was that going to even be tried?

A I can't recall. Most likely, it would have been him wanting to make sure we had tried all possibilities before going on to a procedure, but I can only guess.

Q Well, we know ultimately that Dan did not have radiofrequency ablation. Do you have any memory, from talking to him or his wife, Kathy, about why he did not have it?

A No.

Q There is a comment in your notes in November of 2007 that, at least up to that point, he had delayed the

procedure because it was hunting season?

A Yep. Yes. I'm sorry, you want yep, yep, nope.

Q There are a number of notations. I'm not sure I counted them all. But at least six notations in all of the medical records between June of 2001 and your office visit of November 29th, 2007, where Dan McCornack complains of persistent fatigue. Okay. Is that likely related to his atrial fibrillation?

A That and the fact that the guy's over 40.

Q And weighs 225 pounds?

A Yep.

Q But the -- is atrial fibrillation a disease -- in a man like Dan McCornack, can it cause fatigue for one reason or another?

A Commonly.

Q Okay.

A It's usually most noticeable at higher levels of exertion. When people are doing day-to-day activities, oftentimes it's not as noticeable.

He was very active, and he would want to go over hill over dale in ways he did when he was younger, he would notice he couldn't do as well as he did previously.

Q I think in the notes there are times when he complains he can't keep up with his father on the golf

course. Do you remember those notes?

A Something like that.

Q So when you're comparing your condition with somebody who is at least presumably 18 or more years older than you are, that's some sign of a problem other than just deconditioning; correct?

A Common.

Dr. Winkle is usually very good at presenting a very evenhanded approach to the likelihood of his success.

As I recall, he did not offer them 100 percent chance of success, and some people, depends if your cup is half full or half empty.

The fact is that Dr. Winkle will not try to sell you a product without you knowing exactly what your odds of success and failure are.

Q It's one of those risk benefit analyses?

A Exactly.

Q Okay. In general, did Mr. McCornack's atrial fibrillation get worse over time?

A Either you're in it or you're out of it. And once he had it, it pretty much was unchanged.

Q I'm just looking at it from originally he was on no digoxin. Then he was on .25 a day. Then .5 a day.

By May of 2001 there were plans for holter monitoring.

By July of 2001, he was increasing his diltiazem.

And then by 2007, Dr. Winkle is at least advising of the possibility of ablation being beneficial.

Is that a progression that demonstrates a worsening?

A I wouldn't say that. I mean, in some ways it's -- the fact that Dr. Winkle -- well, again, if you had asked to have an ablation ten years ago, I would say the odds to success are very low.

Over the last five years, not only Dr. Winkle, but other people have done better and more effective and more safety. This would be in the time zone when the process was being developed with greater safety and greater efficacy.

Also as Mr. McCornack was symptomatic and shortness of breath, tiredness, fatigue, can sometimes be subtle and not always appreciated that the heart is going faster than what it really should, and if you can slow that down, in particular at times of exercise, people will sometimes do better. Hence, he got the higher dose of medication. And diltiazem in particular

is noted to be helpful to keep the heart from racing really fast when you get to be more physically active. So I would call it more fine tuning of treatment as far as the medications. And then increasing -- well, progress being made in the field of radiofrequency ablation.

Q Okay.

A I think Dr. Winkle's numbers are significant -- I shouldn't say -- they are certainly better now as he offers the procedure because they've become smarter about how to do the procedure.

Q Sure. Who's Jesse Malone?

A She's a nurse practitioner who works in our office.

Q Mr. McCornack was in your office on November 29th, 2007. Did he see anyone other than Jesse Malone and possibly a medical assistant?

A Likely not. She and I have desks right next to each other, and we are usually in pretty frequent communication about things.

Q Okay.

A She --

Q Go ahead.

A She's an intensive care unit nurse at Stanford University, with a particular strength in heart, and

she's been a very valuable asset to our practice.

Q Is that the last office visit indicated in your Coastal Cardiology notes?

A That I have here. I'd have to look in the computer to be sure.

Q Have you been asked by Mr. Ernst or anybody else to express opinions about the cause of Mr. McCornack's death as part of this litigation?

A Mr. Ernst asked me.

Q Okay. He asked. Are you intending to give opinions to a reasonable medical probability about the cause of his death?

A No. I can.

Q I'm sorry?

A I can.

Q Well, I don't want to ask if you don't intend to give them, or if he doesn't intend to elicit them from you.

MR. ERNST: I didn't hear the last answer.

(Record read.)

MR. MORIARTY: Are you going to elicit opinions from this witness about the cause of Mr. McCornack's death?

MR. ERNST: Well, when you're done questioning. I haven't asked questions. Depends on what you take --

what comes out in this deposition.

MR. MORIARTY: Well, I think I'm entitled to know, because if I stop and you don't ask him any, I don't want to have to come back to California four months from now and ask him opinion questions.

MR. ERNST: Why don't you ask him? I'm going to have a series of questions. If you don't, I will, let me put it that way.

BY MR. MORIARTY:

Q Is there such a thing as postmortem chemistry panels?

A I mean, you can draw a blood specimen anytime that you want, but not ordinarily.

Q Okay. Well, we know there was a postmortem blood sample drawn over 70 hours after Mr. McCornack's death; correct?

A I'd have to check the timing, but, yes.

Q But we don't have BUNs, or creatinines, or potassiums, or calciums run as part of that analysis?

A Okay.

Q Correct?

A As far as I know.

Q So we don't have any -- anything that would reflect what his electrolytes were within five minutes from when he died; right?

A That's correct.

Again, some of those I think may vary more than others, and I'm not -- I don't know how. Certainly potassiums can vary tremendously.

I don't know how the BUN and creatinine would vary over a period of time after. But just with the acidotic process of death, potassium levels go very high. They will not be meaningful of the things that were going on until the moment of whatever event. I couldn't tell you the individual variation unless you're saying postmortem redistribution.

Q We talked earlier about potassium levels could potentially precipitate arrhythmias?

A Yes.

Q We don't have any evidence either way about whether a high potassium precipitated Mr. McCornack's arhythmia assuming he had one?

A You wouldn't know unless you drew one just before the arhythmia happened.

Q But we don't have that evidence here; correct?

A That's correct.

Q We don't have an electrocardiogram that indicates what his rhythm was doing up until the moment he died; right?

A I wish we had one, but, no.

Q We don't have one?
A We don't.
Q And I think I asked this before, but we don't have a -- there's been no report to you of clinical signs or symptoms of digoxin toxicity that day or night; correct?
A That's correct.
MR. ERNST: Objection. Asked and answered.
BY MR. MORIARTY:
Q Are you aware that Mr. Ernst had five or six of Mr. McCornack's Digitek tablets tested for potency by NMS Laboratories?
A He mentioned that, yes.
Q Did he tell you what the results were?
A I believe he said they were within normal limits.
Q Did you know that Dr. Mason, the coroner in Santa Cruz County, changed the autopsy in the death certificate after Mr. Ernst retained him as an expert in this case?
MR. ERNST: Objection.
THE WITNESS: I was unaware of that. I would have presumed he may have changed it after he first saw the lab results.
\\

BY MR. MORIARTY:

Q What are the -- what's the date of that lab result in Exhibit 2? It's up at the top.

A June 24th.

Q 2008; right?

A Right.

Q That's been around for a year and a quarter; correct?

A Yes.

Q Have you ever heard of a coroner changing an autopsy or death certificate after a year and a quarter?

MR. ERNST: Objection.

THE WITNESS: I'm not privy to how often that does happen or whatever. I -- well, I can only make presumptions, but I don't know.

BY MR. MORIARTY:

Q Does it strike you as a little unusual that the coroner would change the autopsy and the death certificate a year and a quarter after Mr. McCornack died?

MR. ERNST: Objection.

BY MR. MORIARTY:

Q Go ahead.

A I could only speculate that he was unaware of the result until that time. We get so much lab through

our office, and sometimes we see it and sometimes we don't.

Q This result is actually addressed to the coroner's office, isn't it?

A It might well be.

Q Right there.

A Again, I can only speculate. I have no knowledge.

Q I don't want you to guess.

MR. ERNST: Well --

BY MR. MORIARTY:

Q I've got enough people guessing in lawsuits.

I'm asking you, if you don't know the answer to my question, you are more than welcome to tell me you don't.

A I don't know why or when this data became available.

Q I want you to assume that that was received at the coroner's office shortly after it was published in June of 2008 and that they had it in their files for a year and a quarter before Dr. Mason changed his reports. Do you think that's a little unusual?

MR. ERNST: Objection. Calls for speculation.

BY MR. MORIARTY:

Q Well, whether you think it's unusual is not

speculative at all.

A In an ideal world, he would have seen it and put it all together at the time, and not had reason to change at this date.

Q Does that mean it's a little unusual?

MR. ERNST: Objection. Argumentative.

THE WITNESS: I would think so.

BY MR. MORIARTY:

Q All right. Before today, in fact, have you ever written anything in your medical records or a letter to Mrs. McCornack, or even a letter to Mr. Ernst, expressing an opinion on Dan McCornack's cause of death?

A No.

Q Do you know anything about what the forensic toxicologist at NMS Labs said about the reliability of this postmortem digoxin level of 3.6 --

A No.

Q -- in predicting levels prior to death?

A I do not.

Q Do you have an opinion to a reasonable degree of medical probability as to Dan McCornack's cause of death, direct cause of death? In other words, did he have an M.I.? Did he have an arrhythmia, or something else?

A You're asking me to give that opinion?

Q Yes. Do you have such an opinion?
A Um --
Q If your answer is, no, you don't have one to a probability, that's fine.
A Well, if you were twisting my arm and forcing me to choose why did this man die, it would be very -- I think most likely that he would have had digitalis intoxication with an arrhythmia death.
You take 10,000 people with these circumstances, that would be my best guess, because the pathologist didn't talk about intracranial bleeding, didn't talk about G.I. bleeding. M.I.s can be not always picked up at autopsy.
You've mentioned all of the pitfalls potentially of him taking digitalis dose a couple hours before he died, or for all we know he could have skipped doses. There's so much to speculate about that.
Using the big crayons, for a guy not having an obvious cause of death, with an elevated digitalis level realizing there can be some postmortem redistribution to some extent, I guess out of 10,000 cases, my opinion would be half the time that would turn out to be the outcome.
Q What's the basis for your opinion?
A All of the things that we've mentioned. The

fact that he was on digitalis. The fact that it was elevated. The fact that he didn't have a number of other things that can commonly put down a young guy like that. But I could easily be wrong.

Q But if digoxin precipitated an arrhythmia, you need to know what the level was at the time that happened; correct?

A Right.

Q And you told me earlier that you have no basis to know the meaning of the postmortem 3.6 nanograms per milliliter in predicting predeath levels; correct?

MR. ERNST: Objection.

THE WITNESS: Yeah. The things I would like to know to be firm in that opinion, if you will, would be the science behind the laboratory which you're talking about, to know whether it rises 2 percent after death or 20 percent. All of the things that you mentioned occurs.

It could be that everybody has a distribution much higher, but then the number of hours after the death at the time the sample was drawn.

Again, I don't know what time he took a pill ahead of time. If he dutifully took his medication at the time of day before he went to bed and he had taken a dose or even an overdose, that could certainly explain

it as well.
BY MR. MORIARTY:
Q Okay.
A For all I know, he skipped the dose and could have had high levels forever and forever.
Your company may know what pills he actually received and how much was in the medication.
Q You're not expressing any opinion as to the cause of an elevated level in this case, are you?
A No.
Q And I think when you were explaining this, when you used the term "big crayons," you said this was your best guess; right?
A That would be a very simple-minded basic fact. Not trying to speculate too much on the situation at hand.
MR. MORIARTY: Let's take a break. We haven't taken one at all. Let's spend five minutes. Then we'll come back and see where we stand.
(Recess.)
BY MR. MORIARTY:
Q Do you keep a research folder on postmortem redistribution?
A No.
Q Do you keep a research folder on digoxin topics

in general?

A No.

Q Given the fact that Mr. McCornack's postmortem diltiazem level was 630, isn't it likely that diltiazem was a substantial contributing factor to causing an arrhythmia which caused his death?

A Um, again, with our previous conversation, I don't know again the postmortem distribution of diltiazem. I don't know the therapeutic index, if you will, of diltiazem.

By the report, when they went to measure a certain therapeutic effect, they will give it certain values. But I'm unaware of other circumstances that may be useful. And we so have commonly given diltiazem in this dose and not observed clinical toxicity, and he's been on it for so long, I would not expect -- I'd love to have more information but what's been presented so far I couldn't be worried about that a lot.

Q You commonly gave, at least Mr. McCornack, .25 two times a day; correct?

A Of the digoxin.

Q He'd been on it a long time; correct?

A That's correct.

Q And it had never caused him problems; correct?

A That's correct.

Q And diltiazem does elevate serum digoxin concentrations, does it not?

A Which is why we usually will carefully check the level a number of times with any fixed combination of the medication.

Q But to some degree, diltiazem could have elevated that level, correct, the level in the Exhibit 2?

A I suspect that if we had stopped his diltiazem his serum digoxin level would have run lower than it what had been measured in the past when he was on diltiazem.

Q Well, you have no reason to believe that diltiazem in his blood specimen wasn't acting in some manner to elevate the digoxin level, do you?

A Because diltiazem affects the renal clearance of the digoxin --

Q Sure.

A -- I would expect it to have been exerting some effect all along in a standard manner, predictable manner.

Q Quinine is known to increase serum digoxin concentrations, is it not?

A I'd have to look that up.

Q I think in your answer to me earlier about

diltiazem, you said you don't know if the -- you know what the therapeutic -- I'm sorry, you don't know what the therapeutic levels are in living patients for diltiazem; correct?

A That's correct. And different laboratories may report different values.

Q Then for digoxin, the .8 to .2 is the common level for living patients; correct?

A That's correct.

Q And you can't quantify the degree to which digoxin may have redistributed in the 70 plus hours from the tissues into the blood before this blood sample was drawn; correct?

A That's correct.

MR. MORIARTY: All right. I don't have any other questions.

THE WITNESS: I know then that, in general, it may rise some. As far as I know, it's not huge. But I'm not an authority on that topic.

EXAMINATION

BY MS. DONAHUE:

Q Dr. Von Dollen, I have a few questions. We met off the record. My name is Alicia Donahue. I represent

the Mylan defendants in this case.

A And --

Q Those are the distributing defendants.

MR. MORIARTY: I represent manufacturing defendants called Actavis.

THE WITNESS: Okay.

MR. MORIARTY: She represents a distributor called Mylan.

BY MS. DONAHUE:

Q I have a couple of questions in regards to specific notes in your file.

Mr. Moriarty asked you about the 11-29-07 note which appears to be the last time that Mr. McCornack was in your office; is that correct?

A Okay.

Q And I think you told us that, on that date, he saw --

A Jesse Malone.

Q Did he also see the medical assistant Sakisha Alexander?

A Yes.

Q And in that record there's a reference to Mr. McCornack having a number of different medications that he took regularly, and one is aspirin; is that correct?

A That's correct.
Q Was that a prescription level of aspirin or a regular over-the-counter aspirin?
A 325 is over-the-counter.
Q And he had been taking that, it looks like, for at least the past year, because there's also a reference to it in the 11-27-06 note --
A Yes.
Q -- is that right?
Do you know if he'd been taking it regularly longer than that?
A He just took at the notes. You said 2006?
Q Yeah.
A I don't know.
Q Okay. Was he taking that -- the aspirin at your direction?
A Yes.
Q Was it for anticoagulant purposes?
A It's a very mild anticoagulant. Most people who don't take Coumadin are advised to take aspirin.
Q Okay. As far as you were concerned, if Mr. McCornack had chosen to go with the ablation procedure that he consulted with Dr. Winkle for --
A Uh-huh.
Q -- would he have -- would it have been

necessary for him to go to take another form of an anticoagulant other than aspirin?

A If he had had the procedure and if it were successful, would he have required anti-coagulation?

Q Let's do it two ways. In order to have the procedure, prior to the procedure would he have needed to go on a different anticoagulant other than the aspirin?

A Dr. Winkle could probably better answer that. Ordinarily not, I don't think so.

Q Okay. And what about post procedure, as far as you know?

A That has varied. Sometimes they'll have had them on anti coagulation for a period of weeks or months afterwards, but certainly not long term.

Q Thank you. Under the -- going back to the 11-29-07 note, under Plan, I take it that the three items referenced in the plan were items that were discussed with him by Jesse Malone?

A Right.

Q And it says that "Mr. McCornack is very unclear about what he would like to do at this time in regard to treatment options"; correct?

A Correct.

Q It indicates after Number 2 that, Ms. Malone

will discuss with you and get your thoughts on Mr. McCornack's treatment options?

A Right.

Q Is there any notation in your record that Ms. Malone had that discussion with you?

A No. Well, I remember us talking in the office. And I'd have to go back to Dr. Winkle's note to give you the details because I recall they gave him a two-thirds chance of having this procedure be successful round one.

And Mr. McCornack was very happy not to be bothered by medicines or procedures or anything like that. And I suspect -- I can speculate, if you will, that he was weighing the odds, "If I go through this whole thing and it doesn't help me a third of the time, do I still want to go through it or not?"

But we'd gone through a lot of these discussions together and he was pretty well-informed. So, when he wanted to commit, he would commit. When he didn't, he didn't.

Q There's no -- you don't have any indication that he committed to any treatment options?

A No, he was in direct contact with Dr. Winkle and should he have wanted the procedure he could have called up any time and set it up.

Q He didn't indicate to anyone in your office

that he decided to change his treatment option after --

A No.

Q -- 11-29-07?

A He did want to go hunting.

Q Pardon me?

A He did want to go hunting.

Once we refer to Dr. Winkle, we kind of we're there, but at the same time we don't put ourselves in between them and the physician.

Q Well, someone -- Ms. Malone in your office was discussing treatment options --

A Yes.

Q -- with the patient; correct?

A Yes. And we were all saying the same thing.

Q It was his decision?

A Yes.

MS. DONAHUE: Okay. Thank you. That's all I have.

EXAMINATION

BY MR. ERNST:

Q With regard to this radiofrequency ablation, there wasn't a critical time issue, was there?

A No. I mean, it could have been today, last

week, next week.

Q So it wasn't an immediate time that it needed to be done now or a particular time?

A That's correct.

Q Coumadin was part of the treatment regimen of that?

A Dr. Winkle will sometimes have people be on anti coagulation ahead of time. Because his heart structures were pretty normal, a lot of times they won't.

They are concerned that once they start tampering with the catheters they can knock clots loose that are there. Certainly if someone has a large atrium, then fibrillation a long time has more structural heart disease they will want to be on anticoagulants before the procedure. Someone such as him, as I recall, they were as common as walk in off the street and have the procedure.

Q He didn't have a lot of what you call structure?

A Structural heart chambers. He may have had mild thickening of the heart muscles, but certainly the chambers were normal size, valves worked fine.

Q Doctor, I have a series of questions I want to ask you about your knowledge.

You've treated Mr. McCornack for a great number of years. I think 12, 13, 14 years, something like that; is that accurate?

A Yes. I have to check the dates. Somewhere about.

Q To your knowledge, did Dan McCornack ever have impaired renal function?

A No.

Q And to your knowledge, was Dan McCornack compliant with his medication regimen?

A To the best of my knowledge. I wasn't really close to him in that regard, but the levels were certainly consistent. By the family's report, he had taken it. He did tell me when he deviated the dose.

Q You treated and cared for Dan McCornack; true?

A Yes.

Q Was his death a surprise to you?

A Yeah.

Q Were you aware that there had been a recall for Digitek?

A Yes.

Q When you look at the facts that you have with regard to the training, experience, your hands-on clinical examination and knowledge of Mr. McCornack over a period of over ten years, is his death consistent with

digoxin toxicity?

MR. MORIARTY: Objection.

THE WITNESS: Yeah. Certainly, if he had had digitalis toxicity, he could have died in this manner.

BY MR. ERNST:

Q Now, earlier you gave an answer to one of Mr. Moriarty's questions that involved the word best guess, but I don't want your best guess. I want your best estimate or your opinion, if you will, as you sit here today.

As you sit here today, knowing that there was a postmortem --

MR. MORIARTY: Sorry, I clipped those together.

BY MR. ERNST:

Q -- finding of digoxin level of 3.6 nanograms per milliliter, together with the circumstances surrounding his death, his age and his clinical history, and the personal observations that you have made, what do you think is the most likely cause of his death?

MR. MORIARTY: Objection.

MS. DONAHUE: Objection.

MR. MORIARTY: Form and otherwise.

MR. ERNST: You can go ahead and answer the question.

THE WITNESS: Of all of the possibilities

presented, I would -- I would -- I would -- my opinion would be digitalis intoxication would be the most common cause, with all of the caveats we've mentioned.

BY MR. ERNST:

Q Now, as you sit here today, that is your pick?

A Right.

MS. DONAHUE: Objection.

BY MR. ERNST:

Q There's always more work that you can do. You can do more research, more studies, do all sorts of things, but as you sit here today, that's what you think?

A That's correct.

MR. ERNST: Thank you. That's all I have.

MR. MORIARTY: I don't have anything else.

MS. DONAHUE: Me neither.

MR. MORIARTY: I think Dr. Von Dollen should read and sign his transcript, which means you're going to get this. You have a chance to read it, make sure she took down a lot of these words right. There are times when I talk fast, you talk fast. Just to make sure that the transcript is accurate. Okay?

THE WITNESS: I'm not good at rereading things, But, yeah.

MR. MORIARTY: And then there will be a

separate sheet, and if there's a mistake you note it on the separate sheet. Keep the transcript for your own file and you can send the sheet back to the court reporter or --

MR. ERNST: I have a couple more questions. I have a couple more thoughts.

MR. MORIARTY: No, we were done. The deposition is over.

MR. ERNST: You don't want to allow me to ask any more questions, Counsel?

MR. MORIARTY: I owe you a favor. Maybe.

Okay. Go ahead. Don't be surprised if it spurs me to ask some. You may want to think twice.

MR. ERNST: Or three times. May I look at what you've got here?

(Short pause in proceedings.)

MR. ERNST: I'm happy. Thank you.

Nothing further.

We're going to let you go quick.

You want to send the transcript to me?

Send it directly to him with a self-addressed, stamped envelope.

MR. MORIARTY: Fine with me.

MS. DONAHUE: Yes.

MR. ERNST: Send the original to her.

And advise there will be a document in the front you can make changes and corrections.

And do you usually send it back to the court reporter? That's how you do it?

MS. DONAHUE: Yeah, the changes. Yes.

MR. ERNST: You'll receive it in the mail.

Make whatever changes you deem appropriate, but you don't have to make any changes at all. If you want to make changes, if you do, put them in the front and send them back to the court reporter.

MS. DONAHUE: A letter will tell you there's a 30-day time period to do that. If you do nothing the transcript stays the same.

MR. ERNST: You can sign under penalty of perjury.

MR. MORIARTY: If you have questions about any of that process, you can call Don or me. If you call me, we're not going to talk about the case. We're just going to talk about how to sign depositions.

And that's where you can reach me.

And if you are billing me for this two hours and 25 minutes, that's where you bill me.

MR. ERNST: You didn't ask what the billing rate is, but...

(Deposition concluded at 4:26 p.m.)

STATE OF CALIFORNIA)
)ss.
COUNTY OF SAN LUIS OBISPO)

WITNESS'S CERTIFICATE

I, Lawrence Von Dollen, M.D., declare that the answers to the foregoing deposition are true to the best of my knowledge and belief.

Dated this day of , 2009.

Lawrence Von Dollen, M.D.

STATE OF CALIFORNIA)
)ss.
COUNTY OF SAN LUIS OBISPO)

REPORTER'S CERTIFICATE

I, Cindy D. Griffith, a Certified Shorthand Reporter in and for the State of California, do hereby certify:

That, prior to being examined, the witness named in the foregoing proceeding was by me sworn to tell the truth, the whole truth and nothing but the truth.

That said deposition was taken before me at the time and place therein set forth and was taken down by me in shorthand and thereafter reduced to computerized transcription.

I hereby certify that the foregoing deposition is a full, true and correct transcript of my shorthand notes so taken.

Dated at San Luis Obispo, California, this 14th day of October, 2009.

CINDY D. GRIFFITH
CERTIFIED SHORTHAND REPORTER

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